UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA

IN RE KOREAN RAMEN ANTITRUST LITIGATION

Case No. 13-cv-04115-WHO

ORDER GRANTING MOTIONS FOR CLASS CERTIFICATION

Re: Dkt. Nos. 361, 364, 490, 492

INTRODUCTION

Defendants Nongshim Co., Ltd., Nongshim America, Inc. (collectively Nongshim), Ottogi Co, Ltd., and Ottogi America, Inc. (collectively Ottogi), allegedly conspired, along with Samyang Foods Co. Ltd., and Korea Yakult Co. Ltd. (collectively "conspirators") to raise the price of Korean Noodles[1] in Korea and in the United States.[2] Two groups of plaintiffs in these consolidated cases – Direct Purchaser Plaintiffs (DPPs), food retailers and distributors that purchased Korean Noodles directly from defendants,[3] and Indirect Purchaser Plaintiffs (IPPs), individuals who purchased Korean Noodles manufactured by defendants from non-party retailers in California, Hawaii, Massachusetts, Michigan, Florida, and New York[4] – now move for class

[1] Korean Noodles are defined as by plaintiffs as Nongshim and Ottogi branded bag, cup, or bowl ramen, including fried, dried, fresh and frozen noodle products. DPP Mot. at 2, n6.

[2] Samyang Foods Co. Ltd. and Sam Yang (USA), Inc. settled with the plaintiffs and judgment has been entered against them. Dkt. Nos. 398, 399. Korea Yakult Co. Ltd. was dismissed. Dkt. No. 115.

[3] The named DPP plaintiffs are: The Plaza Market, Plaintiff Pacific Groservice, Inc. d/b/a/ Pitco Foods, Summit Import Corporation, and Rockman Company U.S.A. Inc.

[4] The named IPP plaintiffs are: Stephen Fenerjian, Joyce Beamer, Kendal Martin, Anthony An, Eleanor Pelobello, Jill Bonnington, Kenny Kang, Christina Nguyen, Thu-Thuy Nguyen, Yim Ha Nobel, Ji Choi, and Charles Chung.

certification, arguing that the Korean conspiracy impacted the price of Korean Noodles sold in the United States and that they paid more for Korean Noodles than they would have in a competitive market.[5]

Defendants oppose certification, arguing primarily that the econometric models used by the DPPs' expert (Dr. Russell W. Mangum, III) and the IPPs' expert (Dr. Daniel A. Ackerberg) are inherently unreliable and the inputs they use in their models are counter-factual, so their opinions as to classwide injury and damages are without basis and excludable under *Daubert v. Merrell Dow Pharmaceuticals, Inc*., 509 U.S. 579 (1993). Defendants also argue that the models' inherent unreliability means that both sets of plaintiffs have not shown that they can prove injury on a classwide basis and that plaintiffs otherwise fail the acertainability, typicality, and predominance requirements of Rule 23(a) and (b). They stress that the court's analysis of the expert opinions must be rigorous and that the experts' evidence must be persuasive.

Defendants raise reasonable criticisms of plaintiffs' experts' opinions. But it is not my job to choose which side's experts appear strongest, at least at this stage. Instead, I need to determine that the experts' methodologies and opinions are sufficiently reliable to support certification of the class by a preponderance of the evidence and that the experts' opinions are admissible. Plaintiffs have met that burden for certification. I GRANT their motions and DENY defendants' *Daubert* motions.

BACKGROUND

I. KOREAN MARKET AND ALLEGED CONSPIRACY

A. Korean Ramen Noodles in Korea and the United States

During the relevant timeframe there were four main entities in the Korean Noodle[6] market:

[5] The DPPs allege a cause of action for price-fixing conspiracy in violation of Sections 1 and 3 of the Sherman Act, 15 U.S.C. §§ 1, 3. The IPPs allege causes of action for: (i) price-fixing conspiracy in violation of Section 1 of the Sherman Act, 15 U.S.C. § 1; (ii) price-fixing conspiracy in violation of California's Cartwright Act, Cal. Bus. & Code §§ 16700, *et seq*.; (iii) violations of antitrust and restraint of trade laws of California, Michigan, Hawaii, and New York; (iv) violations of state consumer protection laws of California, Florida, and Massachusetts; and (v) unjust enrichment and disgorgement under the common laws of Hawaii and Massachusetts. Dkt. No. 121 ¶¶ 170-214.

[6] Defendants do not take issue with how plaintiffs have defined Korean Noodles, but assert there

defendants Nongshim Korea and Ottogi Korea, settled-defendant Samyang Foods Co., and dismissed-defendant Korea Yakult. Nongshim was the dominant company, possessing approximately 70% of the Korean Noodle market share in Korea. Declaration of Russell W. Mangum, III (Dkt. No. 363-3) ¶ 33; Declaration of Alan J. Cox (Dkt. No. 441-6) ¶¶ 13, 127. Ottogi had between 9-12% of the market from 2000 through 2007, Samyang between 10-11%, and Yakult between 2 and 6%. Mangum Decl. ¶ 68; *see also* Dosker Decl., Ex. 1 at 11 (Nongshim 70.7%, Ottogi 9.5%, Samyang 12.4%, Yakult 7.5% in 2010). Given the high level of market concentration for Korean Noodles in Korea, plaintiffs assert and defendants do not dispute that defendants jointly had the ability to raise prices of Korean Noodles in Korea. Mangum Decl. ¶¶ 106, 127.

All four companies exported Korean Noodles to the United States, through their subsidiaries or otherwise related companies; Nongshim America, Inc., Ottogi America, Inc., Samyang (USA), Inc. and Paldo America. Nongshim America, Inc. is headquartered in Rancho Cucamonga, California, and has locations in California, Texas, New Jersey, Illinois, Georgia, and Maryland. Mangum Decl. ¶ 31. Throughout the Class Period, Nongshim Korea exported noodles from Korea to the United States, but in 2005, Nongshim Korea also established a factory in Rancho Cucamonga, California, to manufacture Korean Noodles. Mangum Decl. ¶ 32. No other defendants or co-conspirators had manufacturing facilities in the United States. *Id*. Prior to 2005, the Korean Noodles sold by Ottogi America in the United States were manufactured by Ottogi Ramen in South Korea and sold to Ottogi Korea, who either sold to exporters in Korea (who imported into the United States) or sold directly to United States distributors. Declaration of Joseph P. Grasser (Dkt. No. 407-1) Ex. 4 (Deposition Transcript of Min Hwan Choi), 7:5-8:11, 16:22-17:2. Defendant Ottogi America, Inc. was formed in 2005 and is headquartered in Gardena, California. Mangum Decl. ¶ 35. Once Ottogi America existed, Ottogi Korea continued to purchase the noodles from an Ottogi Ramen affiliate in Korea, but the noodles were sold

---

are about 150 different products in the Korean market, which contain noodles of different thicknesses, weights, and densities; a variety of flavors and added ingredients; and different packaging (*e.g.*, bags, bowls or cups). Declaration of Mark C. Dosker (Dkt. No. 406-1), Ex. 1 at 2-6.

exclusively in the United States by Ottogi America to various United States-based distributors. Choi Depo. Tr. 15:6-17, 17:20-18:8; *see also* Declaration of Ki Su Jeong ¶¶ 3-5.

According to plaintiffs, Korean Noodles have a unique flavor profile and are different from Japanese or Chinese ramen products (which tend to be less spicy). Mangum Decl. ¶ 61; Ackerberg Decl. at 9-10.[7] Because of their unique flavor profile, they were marketed to specific communities in the United States. Mangum Decl. ¶ 60.[8] Korean ramen products in the United States were positioned as high-end or premium and "not in competition with," the Japanese ramen brands Nissin and Maruchan. Mangum Decl. ¶ 62; Mangum Reply Decl. ¶¶ 42-48; Ackerberg Decl. at 10-14; Ackerberg Reply Decl. at 14-17.[9] However, Korean Noodles are interchangeable with each other. Mangum Decl. ¶¶ 83, 85-90.[10] Defendants contend that in the relevant market – the United States – Korean Noodles *are* in competition with Japanese, Chinese, and domestically-produced instant ramen noodles. Cox Decl. ¶¶ 133-137. Cox asserts that substitution between Japanese and Korean Noodles is likely, especially at the higher "premium end" where much of the Korean and some Japanese noodles are positioned. Cox Decl. ¶¶ 142-44.

Defendants characterize the United States market as much more competitive than, and

---

[7] *See* Declaration of Stephanie Y. Cho (Dkt. No. 363-5), Ex. 7 (2003 Nongshim Factbook) at p. 16; Cho Decl., Ex. 10 (Nongshim 2004 Annual Report); Cho Decl., Ex. 5 (Nongshim 2005 Annual Report).

[8] Cho Decl., Ex. 12 (NSK0091453) at p. 10; Cho Decl., Ex. 7 (Nongshim 2003 Factbook) at p. 16 ("[b]y targeting Korean Americans and locals, exports to the U.S[.] increased by 14.2% over the previous year"); Cho Decl., Ex. 8 (Nongshim 2008 Annual Report) at p. 41 ("[t]argeting over 1.4 million ethnic Koreans living in the United States, we have exported instant noodles to Los Angeles since 1971").

[9] Cho Decl., Ex. 6 (NSA0179630) (Krith Roth e-mail); Cho Decl., Ex. 7 (Nongshim 2003 Fact Book) at p. 16 ("Currently three Japanese firms, Maruchan, Nissin and Sanyo, have an oligopoly in the U.S[.] market. The three firms are competing on low-priced products, whereas Nong Shim is focused on differentiating itself through high-end products."); Cho Decl., Ex. 8 (Nongshim 2008 Annual Report) at p. 41 ("Shin Ramyun is sold for 90 cents United States, two to three times higher than that of Japanese companies such as Nissin Foods or Maruchan. Such a price differential makes an impression on local consumers as a premium brand."); Cho Decl., Ex. 9 (Deposition of Whiting Wu, plaintiff Summit Import Corporation) at 63:16-19; 24-25 ("Within the trade, we call them Korean noodles, Korean ramen. We just basically classify them into Korean, Japanese, Chinese. Each with their own . . . style . . . ." "Each ha[s] their own characteristics.").

[10] Cho Decl., Ex. 3 (Deposition of Bong-Hoon Kim) at 134:7-12 ("the companies in the same industry means [] the companies that make Ramen—in this case, Nongshim, Samyang, Paldo, Ottogi.").

starkly different from, the Korean market. In the United States, Japanese-style ramen dominates, while Korean, Chinese, and domestically produced products have much smaller shares but have been growing in popularity. Cox Decl. ¶ 38. So while Nongshim America sells 90% of the Korean Noodles in the United States market, that accounts for just 13% of total instant ramen sales in the United States. Cox Decl. ¶ 38. Ottogi's share of the United States market is much smaller. *Id*. Within the Korean Noodle portion of the United States instant ramen market, however, during the relevant time period Nongshim and Ottogi accounted for 93.4% of the sales of Korean Noodles. Mangum Decl. ¶ 107. This high level of concentration, according to plaintiffs, meant that defendants jointly had the ability to raise prices for the distinct United States Korean Noodle market. Mangum Decl. ¶ 108.

According to plaintiffs, the raw material costs for Korean Noodles manufactured in Korea (looking to market data and Nongshim's own documents) remained fairly stable with slight increases from 2000 through mid-2007, when raw material and fuel costs increased and production costs increased starkly. Mangum Decl. ¶¶ 72-76. For noodles manufactured in the United States by Nongshim, costs only rose slightly between 2006 and 2010. Mangum Decl. ¶ 78. According to Mangum, the costs do not match or justify the increases in prices. Mangum Decl. ¶¶ 79-81. A comparison between costs of goods sold (COGS) and prices by Mangum shows that the "delta" between those measures almost tripled by the end of the conspiracy period, after removing overhead costs. Mangum Reply Decl. ¶ 27 & Exhibit 29.1-R.

Defendants' expert Cox has a number of explanations for rising prices, which are in his view inconsistent with a conspiracy to fix prices. He concludes that prices among all ramen producers (including Japanese, Thai, and Chinese producers) rose during the relevant period, rising 60% between 2005 and 2010 along. Cox Decl. ¶ 50. He also notes that demand for Korean Noodles in the United States increased during the relevant time period, with Nongshim's sales in the United States almost doubling between 2003 and 2010, while Ottogi's sales grew by a factor of almost five during the same time period. Cox Decl. ¶¶ 52-53. Cox also focuses on profit margins, asserting that Nongshim America's profit margin in the relevant timeframe fluctuated from 0.3% to 4.7% (which was much lower than Japanese and United States-based competitors

during that timeframe). Cox Decl. ¶¶ 59-60. Cox also determined that Nongshim and Ottogi's profit margins were very similar during the alleged collusive periods as compared to non-collusive periods. Cox Decl. ¶ 62.

Plaintiffs contend that wholesale prices of Korean Noodles in the United States are set according to price lists, which are not typically individually tailored, and any discounts are driven by volume purchasing or early payment. Mangum Decl. ¶ 64. Defendants counter that Nongshim set its prices for product manufactured in America by adding 3 to 5 percent on top of its costs, so the prices after 2005 were driven by United States costs. Dosker Decl., Ex. 7. And while Nongshim America modified its price list six times during the class period, each time the implementation of the price change varied and "some types" of unidentified customers were not affected. Cox Decl. ¶¶ 79, 110. Ottogi contends it used a number of different price lists for different types of customers in different geographic areas. Jeong Decl. ¶ 6 & Exs. A, E, L. These lists were modified during the class period numerous times, on different dates, and with respect to different products for different customers. Jeong Decl. ¶ 8. Both defendants also deviated from their prices lists by offering "frequent, substantial and unique" discounts and promotions. Jeong Decl. ¶ 8; Cox Decl. Exs. 13.1-13.10, 14-1-14.5. Therefore, the actual price paid by a DPP depended on any number of customer specific factors like customer type, type of product, purchase volume, inventory level, season, and geographic location. Cox Decl. ¶¶ 87-89, 98. Named DPPs admit that they received individualized discounts, but argue the discounts were typically small and not a regular occurrence. Mangum Reply Decl. ¶¶ 133, 138. However, the prices actually paid by the DPPs are documented in defendants' transaction data.

Defendants assert that there was even more variety in end-consumer prices because the products were sold through a chain of intermediaries at different prices. Cox Decl. ¶¶ 308, 324. Sometimes DPPs were retailers who sold directly to customers. Jeong Decl. ¶ 4. Other times, distributors were DPPs who then sold to retailers who then sold to consumers. *Id*. Some retailers bought both from Ottogi and also from distributors (and therefore are DPPs or IPPs, depending on the purchase). *Id*.

B. The Alleged Price Fixing Conspiracy in Korea

Plaintiffs allege that starting at the end of 2000 or the beginning of 2001, representatives of all four conspirators met at a hotel in Seoul and agreed to a specific protocol to raise factory-level (wholesale) prices for their Korean Noodles.[11] It was agreed that Nongshim, as the market leader, would generally increase prices first, and the other defendants would raise prices shortly thereafter.[12] The defendants allegedly met again on March 28, 2001, where the companies' executives had gathered to attend the Ramen Transaction Order Association (the "RTOA" or "Ramen Conference"). According to plaintiffs, senior representatives from Nongshim, Ottogi, Yakult, and Samyang met at least twice and discussed a "very broad" range of topics, but specifically including Korean Noodle price increases and the need to "make sure" that the price is appropriate "to make a profit."[13]

As a result of these meetings, plaintiffs allege that the conspirators implemented the price-raising plan first discussed in the Seoul hotel. Nongshim would announce a price increase for its Korean Noodles and the other companies would follow shortly thereafter.[14] Pursuant to the alleged conspiracy, Nongshim announced its first price increases on May 10, 2011, and the other conspirators announced that they were "contemplating" price increases as well, and all of them increased factory prices between May 14 and May 30, 2001. The conspirators agreed on five subsequent price increases between October 2002 and April 2008. Mangum Decl. ¶¶ 40, 48. The conspiracy ended in 2010 when Samyang took the lead in decreasing its prices to "apologize to

[11] Cho Decl, Ex. 2 (Deposition of Jung-Soo Kim) at 38:9-15, 39:23-40:2.

[12] *Id*. at 38:12-15 (Samyang executive reporting on meeting); *id*. at 41:15-18 ("[t]he report that I received from" the meeting was that "if Nongshim raised the price, the other companies will follow"); *id*. at 56:17-57:4.

[13] Cho Decl., Ex. 13 (Deposition of Soo-Chang Ahn) at 72:4-13; *id*. at 43:20-24; 59:15-60:2. 60:21-22; 64:9-11; 69:6-72:19; 77:7-80:10.

[14] *See* Cho Decl., Ex. 2 (Jung-Soo Kim Dep.) at 131:14-18 ("[I]f Nongshim raised the price, then [Samyang] would raise price, and Ottogi would have raised the price after we raised our price."); *id*. at 93:22-94:8 (agreeing there was a "consensus between Nongshim and Samyang and Ottogi and Paldo that Nongshim should raise the price of Korean Ramen noodles and that Samyang, Paldo, and Ottogi would then follow that price").

our customers" for the previous price increases.[15] Plaintiffs' experts opine that the pricing behavior of Korean Noodles during the class period by the conspirators is consistent with "price leadership cartel behavior." Mangum Decl. ¶¶ 91, 93.

The Korean conspirators effectuated the conspiracy by sharing with each other non-public pricing information and plans with respect to prices through in-person meetings, telephone conversations, emails, and faxes.[16] This included sensitive management and price-related information, including sales results, business support strategies, plans for new product releases, sales promotion and advertisement plans, in order to ensure that each company would agree to the price increases.[17] Plaintiffs contend that departments in each of the conspirator companies were set up to effectuate the information exchange.[18] Plaintiffs assert that while Nongshim and Ottogi either negligently or intentionally destroyed records of the communications between them, Samyang's marketing department maintained a portable hard drive on which it kept copies of communications between the conspirators (Samyang Hard Drive).[19]

Defendants vigorously contest the allegations and evidence regarding a conspiracy. Much of plaintiffs' evidence supporting the "information exchange" portion of the alleged conspiracy comes from information on the Samyang Hard Drive. Defendants make numerous evidentiary

---

[15] Cho Decl., Ex. 2 (Jung-Soo Kim Dep.) at 92:12-17.

[16] Cho Decl., Ex. 13 (Soo-Chang Ahn Dep.) at 88:17-18.

[17] "Price list[s], competitors weekly trend report[s], DAUM mailbox or—and the competitors' events, advertising campaign, and personnel or organizational chart, competitors' regular event, competitors' price increase, competitors' new product, competitors' sales figures, competitors' strategy." Cho Decl., Ex. 16 (Deposition of Jeong-Eun Park Dep.) at 65:10-17; *id*. at 17:13-16 (conspirators exchanged detailed information, including "[m]anagement strategy, price increase, and sales strategy after price increase, [and] new product information"); *see also* Cho Decl., Ex. 54 (Deposition of Bong-Hoon Kim) at 128:13-16 ("[I]f we [Samyang] do not raise our price more than a month after [Nongshim] raised their price, then we start getting calls from them or hearing from them.").

[18] Cho Decl., Ex. 14 (Deposition of Jin-Woo Seo) at 16:10-16; Cho Decl., Ex. 2 (Jung-Soo Kim Dep.) at 182:23-183:4 (market research team's purpose as "[n]ot just to exchange pricing information, but also to learn about what is going on with the competitors. So learning about the pricing change, price increase or decrease, would be one of the tasks of the team").

[19] Cho Decl., Ex. 16 (Jeong-Eun Park Dep.) at 16:11-16 (Samyang Hard Drive included "information that [Samyang] exchanged with competitors with respect to Ramen"); *id*. at 27:3-28:3.

objections to the authenticity and admissibility of documents from that drive, arguing that the hard drive was corrupted, the records are unreliable, and defendants' witnesses uniformly testified they did not recall or did not author various documents purportedly secured from the Hard Drive.

On the merits, defendants argue that the price of Korean Noodles was *de facto* controlled by the Korean government because of its importance as staple food and the resulting impact prices of ramen could have on the economy. Cox. Decl. ¶¶ 68-69. Under the government controls existing at the relevant time, Nongshim as the market leader "petitioned" the government for permission to raise prices in the Korean market. Only after numerous meetings, and only if the government consented, could Nongshim raise its prices. Cox. Decl. ¶¶ 68-72.[20] Nongshim's competitors treated Nongshim's newly raised prices as a ceiling and always stayed at or below it. Cox Decl. ¶ 75. Defendants point out that while in July 2012 the Korean Fair Trade Commission (KFTC) found that Nongshim, Ottogi, Samyang and Yakult conspired to raise prices and imposed significant fines on them, that decision and the fines were overturned by the Korean Supreme Court in December 2015.[21]

II. THE IMPACT IN THE UNITED STATES

Plaintiffs allege that the six price increases agreed to by the conspirators led to price increases in the United States. Mangum Decl. ¶¶ 44-45; 138-146. Plaintiffs rely both on defendants' admissions that United States prices were set based off of Korean prices,[22] and on

[20] Plaintiffs argue that the Korean government's preapproval process was "not legally enforceable" and was used to provide only non-binding "administrative guidance." *See* Cho Supp. Decl., Exh. 3 (Declaration of Bong-ik Kim) (NSKHC00005269-70T)). Plaintiffs also argue that the guidance did not prevent price collusion at or below any government guided cap. Cho Supp. Decl., Exh. 14 (Deposition of Soo-Chang Ahn) at 164:16-166:10.

[21] The Korean Supreme Court determined there was insufficient evidence of an express concerted agreement to fix prices, based on a lack of direct, non-hearsay evidence regarding the alleged initiation meeting in 2000. Dosker Decl., Ex. 36. The Court also concluded there was insufficient evidence to show a tacit agreement to fix prices, in light of the history of government regulation of the ramen market, the history of the market share-dominant company (here Nongshim) increasing its prices and competitors following suit ("follow-the-leader-pricing"), and the differences in the amount of price increases and the timing of the price increases by the "followers" after Nongshim acted. *Id.* There is no discussion in the Supreme Court's decision of export markets or international markets.

[22] Cho Decl., Ex. 11 (NSK0134526T from 2008) at p. 2; Cho Decl., Ex. 37 (NSA0009654 from 2010) at NSA0009655; Cho Decl., Ex. 39 (NSKHC-K00000742Tfrom 2003); Cho Decl., Ex. 43

evidence that price increases in the United States market followed closely after price increases in the Korean market. Mangum Decl. ¶¶ 97, 98-99 (United States price increases uniformly followed Korean ones, except with respect to first Nongshim Korea price increase [which was not implemented in the United States market] and the 2006 Nongshim USA price increase [which did not follow a Korean price increase]). With respect to the Nongshim products manufactured in the United States, plaintiffs likewise allege that they were priced with reference to Korean prices.[23]

Mangum, the DPPs' expert, relies on several factors to conclude that defendants' antitrust conduct impacted DPPs in the United States: (i) information about the markets and the market concentrations, and therefore, the power of defendants and the conspirators to raise prices in Korea and in the United States; (ii) correlations between prices charged in Korea and the United States by the conspirators; (iii) correlations between prices as they were raised in Korea and then in the United States; and (iv) a multiple regression "hedonic" or "dummy variable" analysis showing for each of the six price increases a positive and statistically significant coefficient. More specifically, Mangum's econometric regression analysis shows that for 299 DPPs whose data was included in the analysis, only 5 (or 2% of the class or 0.019 of total purchases) did not suffer prices higher than Mangum's estimated but-for price (the more competitive, lower price that would have existed but-for the antitrust conspiracy). Mangum Decl. ¶ 180. Using that base model analysis and excluding the transactions that were not higher than the but-for price, Mangum calculates class-wide aggregate damages on sales of $393.6 million at $115.7 million, and asserts that the products were priced on average 44% higher than they should have been in the but-for world. Mangum Decl. ¶¶ 177, 187.

Ackerberg, the IPPs' expert, concludes that defendants' antitrust conduct impacted IPPs in the United States by relying on a similar model as Mangum, except that he uses an averaged price index (calculated on a monthly basis across different product groups) and a monthly

---

(OTGKR-0020731T and OTGKR-0020732T-37T from 2008); Cho Decl., Ex. 42 (OTGKR-0018885T from 2010); Cho Decl., Ex. 45 (OTGAM-0040220T—21T from 2010).

[23] Cho Decl., Ex. 44 (NSA0015298) (undated pricing spreadsheet); *see also* Cho Decl., Ex. 11 (NSK0134526T) at p. 2 (meeting minutes between NSK and NSA employees from November 2008).

manufacturing cost index. Based on Ackerberg's regression model with his different inputs, Ackerberg determined that DPPs suffered an average overcharge of 31.3% and $130,358,002 in overcharge damages. Ackerberg Decl. at 35. He also provides a lower estimate of aggregate damages if a nationwide class is not certified under California law. *Id*. at 36. Ackerberg opines that wholesalers and retailers passed on 100% of the overcharges to the IPPs based on (i) testimony from retailers as well as an analysis of manufacturer prices compared to the retail price paid and (ii) a review of sample data from distributors and retailers which showed pass on rates between 93% to 138%. For purposes of his damages estimate, he uses a conservative 100% rate as the pass-through. Ackerberg Decl. at 30-35.

Defendants challenge the reliability of plaintiffs' experts' opinions and seek to exclude them under *Daubert*. Defendants' expert Cox seeks to undermine Mangum's showing on impact in the United States by arguing that Mangum's model is based on inaccurate prices and artificial costs estimates, and that any price increases were the result of increases in costs (because of increasing demand, increased marketing expenditures, and increases in fixed costs) and not collusion. Cox argues that Mangum's analysis is fatally flawed because: (i) he did not consider the actual price paid by DPPs after discounts and incentives; (ii) he artificially inflated his but-for price to support an unrealistic conclusion that there was an average 44% overcharge during the class period; and (iii) his hedonic or "dummy variable" model was constructed without the appropriate variables, undermining its predictive value.

Defendants attack Ackerberg on similar grounds, adding that Ackerberg failed to control appropriately for costs in part because he improperly averaged costs among products when costs-per-product varied widely and he averaged costs between Nongshim and Ottogi when their costs differed significantly. Cox Decl. ¶¶ 157-168. As with Mangum, Cox also argues that the prices used by Ackerberg do not take into account the actual prices paid including significant discounts and incentives. Cox. Decl. ¶ 181. With respect to the IPPs more specifically, Cox faults Ackerberg's "pass-through" analysis because: (i) it rests on his and Mangum's faulty assumption that there was classwide impact; (ii) his pass-through analysis (finding pass-through rates between 93 to 138 percent) was based on a far-too limited dataset (2 retailers and 2 wholesalers); and (iii)

Ackerberg ignores intermediaries. Cox Decl. ¶¶ 306, 307, 328. Finally, Cox criticizes Ackerberg's attempt to allocate damages to specific states according to their Korean population, which contradicts facts showing increasing purchases by Hispanic and other non-Korean customers in the relevant timeframe. *Id*. ¶¶ 335-336.

Cox performs his own analysis to establish a but-for price, based on a "more general" "forecasting" approach (contrasted with Mangum and Ackerberg's "dummy variable" approach) relying on observed data in the non-collusive period. Cox Decl. ¶¶ 204-205; Mangum Reply Decl. ¶ 160. Under Cox's approach, the but-for prices are much closer to the real world prices charged in the conspiracy period (and sometimes exceeded actual prices). Cox Decl. ¶ 243. Cox also ran Mangum's and Ackerberg's models after "correcting" for alleged "errors" in prices and costs, showing an average overcharge from Mangum's model of just 1.85% and classwide damages at $7 million. Cox Decl. ¶ 245. That analysis also reduced Ackerberg's average overcharge to 7.2% and classwide damage to $27.4 million. Cox Decl. ¶ 249. Cox emphasizes that both of these partially "corrected" calculations still overstate the damages because not all errors could be corrected using Mangum and Ackerberg's models. When Cox used his "improved costs and prices data" and tests specifically for whether the conspiracy impacted different types of consumers differently, that analysis shows negative impact, zero impact, and positive impact which varied according to the size of the purchases made by the consumer. *Id*. ¶¶ 253, 279-280. All of this, according to Cox, "implies" that plaintiffs' expert models "as presented" are incapable of reliably estimating overcharges across all proposed class members. *Id*. ¶ 255.

Mangum and Ackerberg charge Cox with his own set of errors and over-estimations. With respect to Cox's model, plaintiffs' experts criticize Cox's approach as less precise (because it uses less data) and less flexible (it is unable to account for more factors). Mangum Reply Declaration (Dkt. No. 466-8) ¶¶ 50, 164; Ackerberg Rebuttal Declaration (Dkt. No. 473-2) at 26-27. With respect to Cox's assertion that their results are "untenable," Ackerberg argues that Cox's reliance on defendants' own reports of their net and gross profit margins (to assert plaintiffs' models would have them operating at a loss) is misplaced because Cox's use of "accounting costs" as opposed to "true costs" is not reliable. Ackerberg Reb. Decl. at 33. With respect to pricing differentials,

Mangum points out that Cox's samples – used by Cox to show large differences in prices paid by DPPs – are themselves extreme and not typical, and presents counter-evidence that the "vast majority of prices" fall within a narrow corridor where variables are driven mostly by geography. Mangum Reply Decl. ¶¶ 52-59, 62, 66.

In his reply declaration, Mangum clarifies that his prior cost index was the best measure he had at the time of his initial report based on his incomplete data, but that with the production of additional information from defendants, he was able to construct a more refined cost series based on product-specific costs but with a focus on volume (which Cox allegedly continues to ignore) and also to refine his model to account for lag due to transportation time. Mangum Reply Decl. ¶¶ 75, 114. He disputes Cox's characterization of his analysis as ignoring or under-assessing discounts and promotions in prices. Mangum Reply Decl. ¶¶ 123-128. Running his regression model with the refined data, Mangum still shows overcharges ranging between 29% and 38%. Mangum Reply Decl. ¶¶ 197-200. Under that refined analysis, less than 1.5% of total purchasers were not impacted by the overcharges, accounting for 0.01% of all transactions. *Id*. 203. Damages for the class under the refined data set were $83,642,717. *Id*. ¶ 204.

In his rebuttal declaration, Ackerberg responds to some of the criticisms and also uses more refined cost measures (based on additional cost data provided by defendants), adds a new dummy variable to address post-collusion behavior, and included a lag time for costs (to account for shipping). Ackerberg Reb. Decl. at 20-24. Those refinements did not materially change his conclusion of impact, and still showed an overcharge ranging between 30% and 31.5%. Ackerberg Reb. Decl. at 32. Ackerberg also defends his pass-through calculations and points out that Cox's own analysis supports a finding that all retailers passed the overcharges through and does nothing to undermine Ackerberg's use of a conservative 100% pass-through rate. *Id*. at 35-37. Finally, Ackerberg defends his use of Korean population as an initial way to address allocation of damages between states, but acknowledges that his model can accommodate other ethnicities as well, including the growing sales to Hispanic and other populations. *Id*. at 38.

In his Reply declaration (to which plaintiffs' experts did not have an opportunity to respond), Cox uses new information from Nongshim employees to support his argument that

Mangum and Ackerberg undercounted discounts. Cox Reply Declaration (Dkt. No. 476-8) ¶¶ 50-58. Based on this new information, he also alleges plaintiffs' experts double or triple counted some purchases. Cox Reply Decl. ¶¶ 59-64. Finally, Cox strengthens his criticism of the plaintiffs' regression models for an excessive amount of multicollinearity and their failure to consider important variables. Cox Reply Decl. ¶¶ 7-29.

III. CLASSES SOUGHT TO BE CERTIFIED

The DPPs seek to certify the following class:

> All persons and entities in the United States and its territories who purchased Korean Noodles directly from Defendants Nong Shim Co., Ltd., Nongshim America, Inc., Ottogi Co., Ltd., or Ottogi America, Inc. at any time from April 1, 2003 through January 31, 2010. The Class excludes the Defendants Samyang Foods Co., Ltd., Samyang (USA), Inc., Korea Yakult, Co., Ltd., Paldo Co., Ltd. and any of their current or former parents, subsidiaries or affiliates. The Class also excludes all judicial officers presiding over this action and their immediate family members and staff, and any juror assigned to this action.

DPP Mot. at 2.

The IPPs seek to certify the following class:

> All persons and entities that purchased "Korean Ramen Noodles" anywhere in the United States [or such subset of the United States market as the Court may elect to certify] for their own use and not for resale, from March 1, 2003 through January 31, 2010. For purposes of this definition, "Korean Ramen Noodles" means Nongshim, Ottogi and Samyang branded bag, cup or bowl ramen, including fried, dried, fresh and frozen noodle products. Specifically excluded from this class are any Defendant; the officers, directors, or employees of any Defendant; any entity in which any Defendant has a controlling interest; and any affiliate, legal representative, heir, or assign of any Defendant. Also excluded are the judicial officers to whom this case is assigned and any member of such judicial officers' immediate family.

IPP Mot. at i.

LEGAL STANDARD

I. EXCLUSION OF EXPERT OPINIONS UNDER DAUBERT

Federal Rule of Evidence 702 allows a qualified expert to testify "in the form of an opinion or otherwise" where:

> (a) the expert's scientific, technical, or other specialized knowledge will help the trier of fact to understand the evidence or to determine a fact in issue;

> (b) the testimony is based on sufficient facts or data;
>
> (c) the testimony is the product of reliable principles and methods; and
>
> (d) the expert has reliably applied the principles and methods to the facts of the case.
>
> Fed. R. Evid. 702.

Expert testimony is admissible under Rule 702 if it is both relevant and reliable. *See Daubert v. Merrell Dow Pharm., Inc.*, 509 U.S. 579, 589 (1993). "[R]elevance means that the evidence will assist the trier of fact to understand or determine a fact in issue." *Cooper v. Brown*, 510 F.3d 870, 942 (9th Cir. 2007); *see also Primiano v. Cook*, 598 F.3d 558, 564 (9th Cir. 2010) ("The requirement that the opinion testimony assist the trier of fact goes primarily to relevance.") (internal quotation marks omitted).

Under the reliability requirement, the expert testimony must "ha[ve] a reliable basis in the knowledge and experience of the relevant discipline." *Primiano*, 598 F.3d at 565. To ensure reliability, the court must "assess the [expert's] reasoning or methodology, using as appropriate such criteria as testability, publication in peer reviewed literature, and general acceptance." *Id.* These factors are "helpful, not definitive," and a court has discretion to decide how to test reliability "based on the particular circumstances of the particular case." *Id.* (internal quotation marks and footnotes omitted). "When evaluating specialized or technical expert opinion testimony, the relevant reliability concerns may focus upon personal knowledge or experience." *United States v. Sandoval-Mendoza*, 472 F.3d 645, 655 (9th Cir. 2006).

The inquiry into the admissibility of expert testimony is "a flexible one" where "[s]haky but admissible evidence is to be attacked by cross examination, contrary evidence, and attention to the burden of proof, not exclusion." *Primiano*, 598 F.3d at 564. "When the methodology is sound, and the evidence relied upon sufficiently related to the case at hand, disputes about the degree of relevance or accuracy (above this minimum threshold) may go to the testimony's weight, but not its admissibility." *i4i Ltd. P'ship v. Microsoft Corp.*, 598 F.3d 831, 852 (Fed. Cir. 2010). The burden is on the proponent of the expert testimony to show, by a preponderance of the evidence, that the admissibility requirements are satisfied. *Lust By & Through Lust v. Merrell*

Dow Pharm., Inc., 89 F.3d 594, 598 (9th Cir. 1996); *see also* Fed. R. Evid. 702 Advisory Cttee. Notes.

II. CLASS CERTIFICATION

Class actions are governed by Rule 23 of the Federal Rules of Civil Procedure. Plaintiffs bear the burden of showing that they have met each of the four requirements of Rule 23(a) and at least one subsection of Rule 23(b). *Berger v. Home Depot USA, Inc.*, 741 F.3d 1061, 1067 (9th Cir. 2014) (citing *Zinser v. Accufix Research Inst., Inc.*, 253 F.3d 1180, 1186 (9th Cir. 2001)). The plaintiff "must actually prove – not simply plead – that their proposed class satisfies each requirement of Rule 23, including (if applicable) the predominance requirement of Rule 23(b)(3)." *Halliburton Co. v. Erica P. John Fund, Inc.*, 134 S.Ct. 2398, 2412 (2014) (citing *Comcast Corp v. Behrend*, 133 S.Ct. 1426, 1431-32 (2013); *Wal-Mart Stores, Inc. v. Dukes*, 131 S.Ct. 2541, 2551-52 (2011)).

The court's "class certification analysis must be rigorous and may entail some overlap with the merits of the plaintiff's underlying claim." *Amgen Inc. v. Connecticut Retirement Plans and Trust Funds*, 133 S.Ct. 1184, 1194 (2013) (quoting *Dukes*, 131 S.Ct. at 2551 (internal quotation marks omitted)). These analytical principles govern both Rule 23(a) and 23(b). *Behrend*, 133 S.Ct. at 1342. However, "Rule 23 grants courts no license to engage in free-ranging merits inquiries at the certification stage." *Amgen*, 133 S.Ct. at 1194-95. "Merits questions may be considered to the extent – but only to the extent – that they are relevant to determining whether Rule 23 prerequisites for class certification are satisfied." *Id.*

As the Ninth Circuit clarified in *Ellis v. Costco Wholesale Corp.*, 657 F.3d 970, 982 (9th Cir. 2011), simply because an expert opinion clears the "scientifically reliable and relevant" hurdle of *Daubert*, does not mean it passes the "rigorous analysis" required by Rule 23 to support class certification. Instead, at class certification a court must determine whether the expert's evidence supporting certification is persuasive following a rigorous analysis of the same. *Id.* at 983-84. As part of that rigorous analysis, a court may be required to resolve factual disputes between the plaintiffs' and defendants' experts if those disputes go to whether or not the injury at issue can be shown on a classwide basis. *Id.*

Under Rule 23(a), the class may be certified only if: (1) the class is so numerous that joinder of all members is impracticable, (2) questions of law or fact exist that are common to the class, (3) the claims or defenses of the representative parties are typical of the claims or defenses of the class, and (4) the representative parties will fairly and adequately protect the interests of the class. *See* Fed. R. Civ. P. 23(a). A plaintiff must also establish that one or more of the grounds for maintaining the suit are met under Rule 23(b): (1) that there is a risk of substantial prejudice from separate actions; (2) that declaratory or injunctive relief benefitting the class as a whole would be appropriate; or (3) that common questions of law or fact predominate and the class action is superior to other available methods of adjudication. *See* Fed. R. Civ. P. 23(b).

DISCUSSION

I. DPP MOTION FOR CLASS CERTIFICATION

Defendants do not contest numerosity, and I find the proposed class is numerous as it includes approximately 229 DPP entities. Mangum Decl. ¶ 180. Defendants do not contest ascertainability or adequacy of plaintiffs' counsel, and I find that the DPP class members are ascertainable and the proposed class representatives and their law firms are adequate under Rule 23(a).[24]

Instead, defendants argue that individual questions predominate as to both injury and damages, and that the named DPP class representatives are not typical and cannot represent the larger DPP class.

A. Predominance of Common Questions under Rule 23(b)(3)

Defendants do not dispute that plaintiffs will attempt to show through common, classwide proof the existence and nature of the conspiracy (although they vigorously dispute that a conspiracy existed). The question is whether plaintiffs have shown that they will be able to prove injury and damages through common proof. Defendants contend that individualized issues as to

[24] On February 3, 2014, I appointed two firms Hausfeld LLP and Glancy Binkow & Goldberg LLP as interim class counsel for the DPPs based on a showing of experience and adequacy. Dkt. No. 22. Those firms have continued to vigorously litigate this case and nothing has occurred to undermine my initial determination of their experience and adequacy. *See also* Declaration of Stephanie Y. Cho (Dkt. No. 363-5) ¶ 59.

injury and damages will swamp the otherwise common questions.

1. Injury

Plaintiffs argue that have shown that they will be able to provide injury on a classwide basis through three types of proof: (i) contemporaneous evidence, including defendants' own documents and documents of their co-conspirators demonstrating the conspiracy in Korea and price increase patterns in Korea correlated to price increases in the United States; (ii) market evidence showing the Korean Noodle market is highly concentrated, and given their market shares, defendants has the power to jointly raise prices; and (iii) Mangum's econometric regression analysis of market data.

a. Mangum's Regression Analysis

Actual Price: Defendants first attack the validity of Mangum's model based on Mangum's failure to consider discounts and incentives provided to DPPs. Cox Decl. ¶¶ 179-82. Because of price variability based on defendants' promotions and individual DPPs' purchasing power and negotiated discounts, according to Cox, determination of antitrust injury for each DPP requires individualized analyses. Cox Decl. ¶¶ 270-97. Without taking into account the actual prices paid, defendants argue that Mangum's model fails to accurately determine whether class members were injured.

The DPPs respond that the discounts have generally been accounted for in the transactional data provided by defendants and considered by Mangum. Mangum Reply Decl. ¶ 116.[25] They add that even if discounts were not fully addressed by Mangum, Cox admitted that the impact of the discounts is "relatively small" and would not undermine Mangum's conclusion that classwide injury and damage occurred. Supplemental Declaration of Stephanie Y. Cho (Dkt. No. 466-7), Ex. 2 (Deposition of Alan Cox.) at 154:19-155:2.[26]

[25] Plaintiffs contend that it is Cox's model that contains an error by counting discounts twice. *Id.* ¶ 116. More specifically, Mangum criticizes the discount figures Cox uses as based on discounts provided in the post-conspiracy period but applied to the pre-2005 period where there no evidence of discounts. Mangum Reply Decl. ¶¶ 137, 141-142.

[26] That is likely, according to plaintiffs, because defendants' own transaction data show that few customers received discounts and most transactions were not discounted. Mangum Decl. ¶¶ 139-141; Mangum Reply Decl. ¶ 137.

In a reply declaration, which plaintiffs did not have an opportunity to address in their briefing, Cox contends that on his *re-review* of the Nongshim USA data (and with the benefit of additional information provided by Nongshim employees to interpret the transaction and discount data), his suspicions that Mangum failed to account for all of the discounts were confirmed. That is because only some of the transaction data relied on by Mangum (and by Cox initially) show net discounts, but there were "many transactions where the discount clearly was not included in the net sale price" because of how actual discounts were listed in the discount and transaction databases provided by Nongshim. Cox Reply Decl. ¶¶ 51-52. As a result of Mangum's (and Ackerberg's) misinterpretation of the data, according to Cox, plaintiffs ignored $1.7 million in discounts, in addition to ignoring $2.4 million in promotions (because as Mangum admitted, there was no classwide way to account for promotions). *Compare* Cox Reply Decl. ¶ 57 *with* Mangum Reply Decl. ¶¶ 122-123.

That said, there is no evidence that these omissions are *material* to the question of injury or ability to prove classwide injury. Not only did Cox admit in deposition that defendants' discounts and incentives had a "small impact," even *after* determining that plaintiffs' experts failed to take into account $4.1 million in discounts/incentives, but also he does not assert or show in his reply declaration that the omitted the $4.1 million has a material impact on plaintiffs' experts' models and finding of classwide harm. Instead, the relevance of the omitted discounts/incentives, according to Cox, is simply further proof of allegedly wide "price dispersion" that in Cox's opinion is inconsistent with allegations of a price-fixing conspiracy and creates individualized issues. Cox Reply Decl. ¶¶ 69-70. When pressed during oral argument on the motions for class certification, defense counsel admitted that in their view the impact of Mangum's omission of the $4.1 million in discounts/incentives was to bolster their argument that Mangum's models and analyses were incomplete and therefore unreliable. Transcript of Oral Argument at 29:10-20; 47:21-48:3.

For current purposes – which is to assess whether the DPPs have put forth a reliable methodology to show impact on classwide basis – the allegedly ignored discounts/incentives have not been shown to be so sizable that they would undermine the reliability of Mangum's model (or

its showing of classwide impact) or Mangum's general approach.[27] As the transaction and discount data is further clarified and reviewed, that revised data can be accommodated by Mangum's model.

As to the price dispersion issue, while truly wide price dispersions between DPPs might undermine *in part* allegations of a price-fixing conspiracy,[28] the evidence of the width of those dispersions is not clear. In his reply, Mangum points out that many of the data points Cox uses in an attempt to show prices vary widely are outliers that represent under 1% of the transactions because Cox fails to account for *volume* when modeling price dispersion; the existence of price dispersion does not undermine Mangum's showing as to impact. Mangum Reply Decl. ¶¶ 63-66.

In short, defendants have not shown that the alleged failure of the DPPs to account for discounts/incentives and "actual price" materially impacts their preliminary classwide showing as to injury (or the utility of their regression model) to such a degree that Mangum's opinion should be excluded under *Daubert* or his determination of classwide impact discounted.

But-For Price: Defendants also attack Mangum's but-for price, arguing that he chose not to use actual data but instead based his but-for cost price on an average of production costs for dozens of Nongshim America products. Cox Decl. ¶ 155. According to defendants, this approach downplays the significance of differences between products' ingredients and other production costs (*e.g,*. bag vs. vs. cup vs. bowl). Mangum Decl. ¶¶ 171-172. Cox argues that Mangum's approach is faulty because production costs vary between $0.20 to $1.26 per unit. Cox. Decl. ¶ 161. As Mangum failed to use product-specific costs for his model, Cox argues that Mangum's model assumes but does not prove injury across the different categories of products. Cox Decl. ¶¶ 220, 286, 298-304.

In his reply declaration, Mangum justifies his average costs approach by noting that he

[27] The same is true of Cox's allegation – first raised in his Reply Declaration – that plaintiffs double or triple counted certain transactions because of their failure to differentiate between purchase entries and discount entries in the data.

[28] According to Cox in typical price-fixing conspiracies, there is little price dispersion as prices have been agreed to by the conspirators. Cox Decl. ¶ 44. The allegations here, however, are not that prices will be identically fixed, but that prices will be raised in a coordinated fashion.

used a "weighted costs series," an approach that Cox admitted reasonably accounts for and is appropriately used where a business produces different products with different costs (as here). Mangum Reply Decl. ¶ 71; *see generally id.* ¶¶ 78-82.[29] And when Mangum uses Cox's preferred cost series in his model, the result is roughly the same, showing 97% of class members were injured during the conspiracy. Mangum Reply Decl. ¶ 202. Plaintiffs also assert that Mangum was correct in not using Cox's proposed "six-month rolling costs" averages to take account of the lag between manufacture, transit, and sale (use of which significantly reduces the showing of classwide impact). They argue that Mangum's use of a lag approach, whereby costs are shifted by two to three months to accommodate transit and sale, is more appropriate especially given shelf life issues for the perishable products at issue. Mangum Reply Decl. ¶¶ 105-110. Mangum uses that lag approach in support of his reply, as part of his "refinement" of his costs inputs, and his model continues to show significant classwide impact.

Finally, defendants criticize Mangum because he ignored Ottogi cost data altogether, and they argue Mangum should have followed Cox's lead and used actual Ottogi cost information post-2006 and transfer pricing information between Ottogi and Ottogi Ramen (the company who manufactured all of Ottogi's ramen during the relevant timeframe) to estimate pre-2006 costs. Mangum admits that he did not incorporate Ottogi data, but explains that decision is a rational one because: (a) Ottogi-specific cost data was only produced starting in 2006 (and using only a partial data set could lead to unexplained and invalidating differences and require finding an appropriate proxy for the earlier dates); (b) Nongshim's data was broken down into "smaller constituent components" where Ottogi's data was grouped into 3 larger categories (and therefore more susceptible to problems comparing Nongshim and Ottogi information); and (c) Nongshim Korea data provided an appropriate proxy for Ottogi. Mangum Reply Decl. ¶¶ 95-99. Indeed,

[29] Mangum also compared his weighted cost series to actual transaction prices for wheat, vegetable oil, and labor reported by the Korean government. Mangum Reply Decl. ¶¶ 71-73, 75-76. This data was not included in the model, but used only to double-check the accuracy of cost data reported by defendants. Mangum Reply Decl. ¶ 73. While defendants attempt to criticize Mangum for his double-check measures (*e.g.*, Mangum should have used palm oil, not vegetable oil), defendants provide no examples of specific costs that were not accounted for or under accounted for by Mangum that would have made a material difference had they been considered.

defendants do not show how Mangum's use of Nongshim cost data either *actually* skewed or otherwise undermined the reliability of his model and conclusions.

Defendants' criticisms as to Mangum's costs, and the role they play in setting his but-for price, rest primarily on disputes of fact and the reasonableness of assumptions made by the experts on both sides. There is nothing in Mangum's approach that fatally undermines the reliability of his methodology or model such that Mangum's opinion should be excluded under *Daubert* or his determination of classwide impact significantly discounted.

Wrong Model/Wrong Variables: Another "intractable error" in Mangum's approach, according to defendants, is his use of the hedonic/dummy variable approach to estimate overcharges without using appropriate variables; namely, he uses variables that are highly correlated to each other and erase the model's predictive values. Cox Decl. ¶¶ 206-219 (discussing "multicollinearity"). In other words, Mangum allegedly uses as variables facts which have legitimate, not illegitimate, effects on price, thereby reducing the model's ability to determine impact from price collusion (*i.e.*, facts which correlate to costs of manufacture, changes in the Korean population, etc.).

Generally, disputes about the appropriate degree of collinearity in a regression model do not defeat class certification. *See, e.g., In re High-Tech Employee Antitrust Litig.*, No. 11-CV-02509-LHK, 2014 WL 1351040, at *21 (N.D. Cal. Apr. 4, 2014) ("Other courts have admitted regressions even in the face of expert disagreement regarding whether collinearity posed a problem. . . . This is not surprising given that the concept of collinearity is not a methodology, but a common phenomenon that results when using the methodology of regression analysis." (citation omitted)); *In re Air Cargo Shipping Servs. Antitrust Litig.*, No. 06-MD-1175 JG VVP, 2014 WL 7882100, at *19 (E.D.N.Y. Oct. 15, 2014), report and recommendation adopted, No. 06-MD-1775 JG VVP, 2015 WL 5093503 (E.D.N.Y. July 10, 2015) ("The fact that Kaplan's model may be tainted by multicollinearity goes purely to its weight, and is not a reason to strike it.").[30] The DPPs

[30] Defendants rely on cases where expert models were excluded under Rule 702 if "severe" multicollinearity was shown to exist. *See, e.g., Reed Const. Data Inc. v. McGraw-Hill Companies, Inc.*, 49 F. Supp. 3d 385, 405 (S.D.N.Y. 2014), *aff'd*, 638 F. App'x 43 (2d Cir. 2016) (excluding expert's method, in part, because of severe multicollinearity). At oral argument, defendants

and Mangum assert that some degree of collinearity is permissible and only perfect collinearity creates a problem (which did not occur with the variables in Mangum's model). Mangum Reply Decl. ¶¶ 15, 153-60.

While Cox's reply declaration in support of defendants' *Daubert* motion focuses significantly on multicollinearity, his contentions rest in large part on the parties' dispute over which "costs" should be used in the variables (*i.e.*, Cox's six-month averaged costs or Mangum's two month lagged revised costs). *See* Cox Reply Decl. ¶¶ 11-12, 16, 30-31; *see also* id. ¶¶ 18-19 (using Cox's costs and reviewing only Ottogi's purchases, shows little statistical significance, supporting Cox's theory that the overcharge allegations are driven by Nongshim's prices and not by an actual conspiracy). Cox's multicollinearity argument also rests to a lesser extent on whether Mangum's other variables correlate too much in a legitimate manner with price increases, a topic of dispute between the experts.[31]

In sum, defendants have not shown that alleged errors by Mangum fatally undermine his showing of classwide injury or that his model/approach is unreliable.

b. Correlation Analysis

Finally, defendants criticize Mangum's confirmation of his model's conclusions by looking to correlation analyses between prices of products and prices as raised in Korea and the United States. Mangum's correlation analysis, according to Cox, is itself riddled with mistakes, including imputing a United States effect on pricing decisions made in the Korean domestic market, relying only on Nongshim data, not using actual price data (with discounts/incentives),

---

characterized the degree of collinearity in Mangum's model as "severe," but Cox says only the collinearity is "significant" and never characterizes it as "severe."

[31] Cox uses a different, allegedly more "general" approach called the "forecasting approach" that freezes in place the market dynamics existing at the end of the benchmark period, but does not account for changes during that period, including Ottogi America's creation and Nongshim's United States production facility. *Compare* Cox Decl. ¶¶ 242-55; *with* Mangum Reply ¶ 164-66. Cox also argues that Mangum's model produced an average overcharge that is 26 points different than Cox's, after Cox adjusted it to take into account the proper variables. Cox Decl. ¶¶ 157-58, 284. But Cox does not dispute that Mangum's model – even after "correction" by Cox—still shows significant classwide injury. Instead, Cox argues that Mangum's model should have included a variable accounting for increased marketing to explain the growth in demand and price. Cox Reply. Decl. ¶ 27.

and ignoring correlations in price changes (degree of change) by looking only to price (absolute price point). Once Cox corrects those "errors," he finds very little correlation between the percentage price changes between Korean ramen suppliers and the American affiliates. Cox Decl. ¶¶ 111-12.[32] Mangum not surprisingly characterizes Cox's correlation analysis as impaired by its inclusion of faulty data and assumptions, including use of a too short window for comparing price changes (daily or weekly), where Mangum uses a longer window (during each six month interval) because the United States price changes did not immediately follow the Korean ones, but took effect within a six month window. Mangum Reply Decl. ¶¶ 36-42.

Plaintiffs also defend Mangum's model's conclusions by reference to Cox's own analysis that the delta between the prices charged in the United States and the costs of goods manufactured increased substantially between the benchmark period and the last conspiracy period. Cox Rep., Ex. 12.2. Mangum in his reply declaration used Cox's approach as a rough "sanity check" and concluded that the delta between price and COGS tripled during the overcharge period, supporting his conclusion that there was a 44% overcharge during the conspiracy. Mangum Reply Decl. ¶¶ 69-72, Ex. 29.1-R (using Cox's assumptions).

In response, defendants argue that 44% overcharge estimate is itself incredible when the defendants never achieved a net profit margin over 10% or a gross profit even approaching that much. But as Mangum explains, net/gross profits are imprecise metrics in part because accounting techniques can "hide" true costs and profits, and that here facilities expansion took up

[32] Defendants point to a case where Mangum's testimony was rejected. In *In re Florida Cement & Concrete Antitrust Litig*., No. 09-23187-CIV, 2012 WL 27668 (S.D. Fla. Jan. 3, 2012), Mangum attempted to extrapolate classwide injury by using average list prices without – as here – considering the discounts or price deviations. The court rejected that approach, because "Dr. Mangum did not conduct any significant analysis at the individual customer level to determine whether any price changes were consistent across the putative Class." *Id*. at *9. Plaintiffs distinguish *Florida Cement* by pointing out that the evidence in that case showed that many customers' actual prices did not correspond with defendants' increased prices, which is not the situation here. In *Florida Cement*, Mangum's correlation analyses were also rejected because they were based on "average monthly prices" but Mangum "offers no explanation as to how this analysis of 'average monthly price' establishes that individual customers were affected by the purported conspiracy," and his model showed negative correlation when a separate analysis was done for prices paid by the ten largest customers, indicating the aggregate analysis was faulty. *Id*. at *10. No such analysis is provided by or suggested by defendants here. Most importantly, in *Florida Cement*, Mangum did not provide a regression analysis, which he did here. *Florida Cement* is not persuasive.

much of the profit being made. Magnum Reply Decl. ¶ 27 & n.34. Therefore, according to Mangum, looking to the growing delta between price and COGS is more instructive.

Again, in the end, the parties' disputes' regarding the reliability and the conclusions to be drawn from the experts' regression models and correlations comes down to which experts input the more plausible facts and used the right assumptions to determine costs. DPPs have presented a methodology to show classwide antitrust impact from the alleged conspiracy and proven its relevance and reliability by a preponderance of the evidence. Defendants have not shown that errors in Mangum's methodology or in the resulting modeling fatally undermine its reliability so that his opinions based on his model should be excluded.

c. Contemporaneous Evidence and Market Evidence

Plaintiffs also rely on anecdotal evidence of the existence of the conspiracy and its impact on the United States market to reinforce their econometric showing. *In re High-Tech Employee Antitrust Litig.*, 985 F. Supp. 2d 1167, 1217 (N.D. Cal. 2013), Judge Koh recognized the established proposition that "the importance of these statistical models is diminished in light of the extensive documentary evidence that supports Plaintiffs' theory of impact," including direct and anecdotal evidence. *Id*. The direct and anecdotal evidence of the conspiracy in Korea and its *impact* in the United States market is significant, but not by any means extensive.

Defendants argue that the evidence of the Korean conspiracy is undermined by the realities of the Korean pricing system and government controls, as found by the Korean Supreme Court when it overturned the contrary KFTC findings. They also note that plaintiffs have presented no evidence that the alleged conspiracy was aimed at the United States market. DPPs do not contest that there is no direct evidence of a conspiracy aimed at the United States, but say that their evidence is sufficient because it shows that the prices in the United States market were set based off of prices in the Korean market.

As to the market evidence, defendants point out that plaintiffs' experts barely address the fact that Korean Ramen represents less than 15% of United States instant noodles market. Instead, both of plaintiffs' experts posit a smaller market – the "Korean Noodle market" – which is dominated by the defendants in both Korea and in the United States. Mangum Decl. ¶¶ 105-08;

Ackerberg Decl. at 18-19. This is part of the DPPs attempt to differentiate themselves from the wider instant noodle market in the United States and to support their argument that the Korean Noodle market in the United States is inelastic in light of Korean Noodles' "unique" flavor profile and "premium" branding.[33] Cox points out that the majority of noodles sold at the "premium" Korean Noodle price point ($1.00 to $1.50) *are* Japanese ramen, Cox Reply Decl. ¶ 49, although the vast majority of the Japanese ramen are sold at the lower non-premium price points. Mangum Reply Decl. ¶¶ 43, 47; Ackerberg Decl. at 12-13, Ackerberg Reply Decl. at 5.

A final determination of the relevant market and what the defendants' market power was in that relevant market need not be decided on this motion. Plaintiffs have made a showing that, if defined as the narrower Korean Noodle market, the defendants had market power to be able to increase prices in the United States (and there is no dispute that the defendants had that power in the domestic market in Korea). That showing, combined with the modicum of evidence that the prices in the United States market were set off of the prices in the Korean market, support a preliminary showing of market power and impact.

Similar to the attacks on the inputs used by Mangum in his econometric model, defendants criticize Mangum's showing of correlation between prices as increased in Korea and the United States. But that attack largely depends on how long a lag time between the price rises of one defendant and the other conspirators should be considered, and how long a lag time between increased prices in Korea and increased prices in the United States should be considered. Relatedly, the parties dispute whether absolute price increases or percentage increases should be used for those correlation analyses. At base, however, Cox admits that prices increased in the United States during the relevant time frame and the delta between COGS and sales prices increased during the class period. Cho Supp. Decl., Exh. 2 (Cox Tr.) at 102:12-15; 102:21-

[33] Defendants point out that Mangum's analysis of market characteristics was criticized in *In re Florida Cement & Concrete Antitrust Litig.*, No. 09-23187-CIV, 2012 WL 27668 *11 ("While a market with the characteristics identified by Dr. Mangum may in theory be vulnerable to a price-fixing conspiracy (and capable of proof under a common impact theory), Dr. Mangum fails to show that the market at issue here possesses those characteristics."). However, the characteristics of the Korean domestic market are undisputed, and only a few narrow questions regarding the United States market are presented, *i.e.*, whether to consider lower price point instant noodles or Japanese, Chinese, and other noodles at all.

103:21. Mangum shows how, once manufacturing overhead costs are removed, the delta between the prices charged and COGS tripled in magnitude by the end of the conspiracy period. Mangum Reply Decl. ¶ 27 & fn. 34. Cox does not address the delta between prices and costs in his reply declaration, except to further argue Mangum's costs estimates are faulty and low.

Overall, at this stage, I conclude that Mangum's opinions – based on anecdotal evidence, correlations on prices, and his regression model – provide a reliable and accepted source of classwide proof of impact. Defendants' arguments as to divergent and unaccounted for actual prices, underestimated costs (and therefore underestimated but-for prices), and the resulting alleged weaknesses or irrational conclusions in Mangum's regression model and "cross-check" correlation determinations, can be attacked at summary judgment or trial. They do not require exclusion of Mangum's opinions or a conclusion that impact cannot be determined on a classwide bases for the DPPs.[34]

2. Damages

Untenable Results: Defendants argue Mangum's damages showing is likewise inherently unreliable because it "departs from reality." Defendants point to Mangum's conclusion that defendants' average overcharge was 44%, and that prices therefore should have been 60% lower. Where defendants' net profit margin (according to defendants) was never over 10%, that level of overcharge is simply implausible and would require multiple years of below actual cost sales. According to defendants, Mangum's model is no different from the model rejected in *In re Rail Freight Fuel Surcharge Antitrust Litig*.-MDL No. 1869, 725 F.3d 244, 254 (D.C. Cir. 2013), where plaintiff's model was rejected because it generated substantial false positives for damage

[34] *See e.g., In re Optical Disk Drive Antitrust Litig*., No. 3:10-MD-2143 RS, 2016 WL 467444, at *7 (N.D. Cal. Feb. 8, 2016) (rejecting defendants' attack on econometric regression model based on plaintiffs' expert's "selection of particular data to utilize, the variables he has elected to include in his regressions, and similar details relating to the implementation of his econometric models," and noting that those challenges may be "considered by a fact-finder evaluating the persuasiveness of" that expert's conclusions but do not provide a "basis for wholly rejecting those conclusions at this stage in the proceedings as methodologically unsound."); *see also Kumar v. Salov N. Am. Corp*., No. 14-CV-2411-YGR, 2016 WL 3844334, at *10 (N.D. Cal. July 15, 2016) ("While the ultimate persuasiveness of the [regression] model is a matter to be decided by a trier of fact, Kumar has sufficiently established that it has a model for calculating the damages resulting from its theory of liability.").

where they could be none.

According to defendants, there are obviously false positives for the class members here given the improbably high 44% overcharge. However, as explained above, simply because profit margins remained constant – despite the increase in prices and only slight increase in COGS – that does not mean a 44% overcharge departs from reality. The income that may have resulted from what plaintiffs allege were conspiracy overcharges were, according to plaintiffs, simply put to other uses like manufacturing expansion. *See* Mangum Decl. Exs. 29.1-R, 29.2-R. On reply, after using different cost inputs in response to Cox's criticism, Mangum's model produces between a 29% and 37% overcharge. Mangum Reply ¶ 200.[35] Mangum's inputs and resulting estimated overcharge may be ripe for attack on summary judgment or trial, but they are not to inherently unreliable or untenable to be excludable or preclude class certification.[36]

Methodological Errors: Building on some of the same criticisms of the injury showing, defendants again attack Mangum's "faulty inputs" that produce unreliable outputs, including ignoring customer-specific discounts (miscalculating actual prices paid) and relying on "imprecise" average-cost indexes (which manipulated the but-for price and ignored the actual cost data which Mangum had access to). Defendants argue that Nongshim America and Ottogi had very different costs, given Nongshim's production in the United States and Ottogi's importation from Korea, and Mangum ignored cost differentials between different products. Cox Decl. ¶ 167. Defendants assert when actual prices are considered, some DPPs were undercharged. Cox Decl. ¶¶ 237-40, 268-97.

As with impact, the success of defendants' arguments as to damages hinge on the disputed

---

[35] And Cox, using his own cost inputs and Mangum's model, calculated damages running from 6% in the initial conspiracy period and up to 40% in the last conspiracy period, with lower ranges for periods inbetween. Cox Decl., Ex. 22.

[36] The alleged defaults in Mangum's model are not, even accepting defendants' criticisms, similar to the defects in the plaintiffs' model in the *In re Rail Freight Fuel Surcharge Antitrust Litig.*- MDL No. 1869, 725 F.3d 244, 252 (D.C. Cir. 2013) case. There, the plaintiffs' model showed significant injury to a group of shippers who no one disputed were not injured. *Id.* at 252. Plaintiffs' expert's admission that his model was overinclusive, "shred[ed] the plaintiffs' case for certification." *Id.*

facts and assumptions utilized by the competing experts. Defendants' and Cox's complaints about the aggregate damages produced from Mangum's model are essentially directed to the same complaints as to injury discussed above, many of which were addressed in Mangum's "refined" model discussed in his reply declaration. False positives – inclusion of class members who were not damaged in any of the conspiracy periods at issue – occur with any significance *only* when Cox's preferred cost index and price measures are used. Mangum's showing that 97% of class members were injured during the conspiracy (Mangum Reply Decl. ¶ 202), is substantiated and sufficient at this juncture to show how plaintiffs can prove damages on a classwide basis.

In the antitrust context, aggregate damages calculations "need not be exact" at class-certification stage. Instead, the model supporting a damages case must be consistent with plaintiffs' liability theory, as it is here. *Comcast Corp. v. Behrend*, 133 S. Ct. 1426, 1433 (2013). That different class members suffered different levels of damages likewise will not usually preclude certification. *See, e.g., Vaquero v. Ashley Furniture Indus., Inc.*, 824 F.3d 1150, 1155 (9th Cir. 2016) ("We have repeatedly confirmed . . . that the need for individualized findings as to the amount of damages does not defeat class certification.").

B. Typicality

Defendants argue that because the DPPs are differently situated, they are not adequate to represent the class. Defendants first note that the DPPs are different *types* of entities; national chains vs. distributors vs. wholesalers vs. Korean or Hispanic markets. They next point out that the named DPPs are (or were) based in California and New Jersey and, therefore, differently situated from DPPs located in other states who paid different prices based on freight costs. These differences, when combined with Cox's showing that different DPPs paid different prices based on purchasing power and purchasing history, are the basis for defendants' claim that the named DPPs' claims are not typical of the absent DPP class members.

However, that DPPs paid different prices for their Korean Ramen and purchased in different quantities, and therefore suffered different damages, does not create conflicts between class members that precludes a finding of typicality. "[T]here is substantial legal authority holding in favor of a finding of typicality in price fixing conspiracy cases, even where differences

exist between plaintiffs and absent class members with respect to pricing, products, and/or methods of purchasing products." *In re Dynamic Random Access Memory (DRAM) Antitrust Litig.*, No. M 02-1486 PJH, 2006 WL 1530166, at *5 (N.D. Cal. June 5, 2006); *see also In re Optical Disk Drive Antitrust Litig.*, No. 3:10-MD-2143 RS, 2016 WL 467444, at *12 (N.D. Cal. Feb. 8, 2016) (same); *In re TFT-LCD (Flat Panel) Antitrust Litig.*, 267 F.R.D. 291, 306 (N.D. Cal. 2010) *abrogated on different grounds by In re ATM Fee Antitrust Litig.*, 686 F.3d 741 (9th Cir. 2012) ("There is ample support in the antitrust case law for certifying classes in which there are some variations between products, customers, marketing and distribution channels.").

Plaintiffs point out that the wholesale plaintiffs (Rockman and Pitco) were some of Nongshim's largest customers during the relevant time frame. Cho Ex. 15.3. The representative DPPs also purchased ramen over numerous years, with Rockman purchasing in every year of the class period while Summit (a wholesaler in New Jersey) purchased less product and in only a few of the periods. These DPPs represent, therefore, a cross-section of potential DPPs. Cho Exs. 7.1, 7.2. Defendants have not identified any unique defenses directed to any particular DPPs that would create *actual* conflicts between class members or otherwise undermine the named DPP plaintiffs' typicality or ability to represent the other DPPs.

In sum, plaintiffs have shown that the class is numerous, plaintiffs and their counsel are adequate, and the named DPPs are typical. I also conclude that classwide proof can be used to demonstrate classwide impact from the alleged antitrust conspiracy (or under defendants' theories, classwide proof of a lack of impact) and that common issues of fact and law will predominate.

C. Certification of Injunctive Relief Class under Rule 23(b)(2)

Plaintiffs also move to certify their injunctive relief claim under Rule 23(b)(2). DPPs do not assert that there is any ongoing collusive conduct and admit that the collusive conduct ended in 2010 when Samyang reduced its prices to apologize to its customers for its behavior. Cho Decl., Ex. 2 (Jung-Soo Kim Dep. Tr.) at 92:12-17. However, the DPPs argue that certification of their injunctive relief claims is appropriate because, "Defendants are still very much capable of engaging in the types of anti-competitive conduct that has caused injury to the Class." DPP Mot. at 17. DPPs rely on cases where injunctive relief (b)(2) classes were certified under similar

circumstances. *See, e.g., In re TFT-LCD (Flat Panel) Antitrust Litig*., 267 F.R.D. 583, 596 (N.D. Cal. 2010), amended in part, No. M 07-1827 SI, 2011 WL 3268649 (N.D. Cal. July 28, 2011) (certifying injunctive relief class where "Plaintiffs have alleged a multi-company cartel that operates in a market with high barriers to entry, and that engaged in frequent clandestine meetings and employed sophisticated monitoring devices to ensure compliance."); *In re Static Random Access memory (SRAM) Antitrust Litig*., 264 F.R.D. 603, 611 (N.D. Cal. 2009) ("They allege that Defendants' price-fixing resulted from a systematic, repeated pattern of sharing sensitive competitive information which was greatly facilitated by the cross-competitor business relationships that still exist. Thus, there is alleged a significant risk that the conspiracy will persist or reform in the future.").

Defendants do not oppose or address the propriety of certification under (b)(2) in their opposition. In light of the evidence of continuing market power of defendants and concentration in the market, certification of the injunctive relief claims under Rule 23(b)(2) is appropriate.

II. IPP MOTION FOR CLASS CERTIFICATION

A. Predominance Under Rule23(b)(3)

1. Injury

Defendants argue that Ackerberg's regression model fails for essentially the same reasons as Mangum's. I have addressed and largely rejected those arguments above. They also raise two IPP-specific arguments: (i) Ackerberg fails to account for significant variations in sales prices to the differently situated IPPs; and (ii) Ackerberg fails to offer any methodology to determine pass-through rates on a classwide basis.

Actual Price Data: As with Mangum, defendants fault Ackerberg for not using actual price data with discounts. That issue is addressed above, and does not make Ackerberg's model or his conclusions so unreliable that either fails to pass muster under *Daubert* or the rigorous showing required by Rule 23. That prices charged by Nongshim and Ottogi to the DPPs differed according to price lists, time period, geographic location, or the negotiating skills of particular DPPs has little relevance in light of the actual transaction data from the defendants (which may need to be adjusted in plaintiffs' experts' models in light of the new information disclosed by Cox and

received from Nongshim employees about how to interpret that transaction data).[37]

Cost-Indices: Similar to their attack on Mangum, defendants argue that Ackerberg erred in failing to use actual cost data or product-specific costs to calculate his but-for price and instead erroneously relied on an average set of cost indices. As noted above, in his Rebuttal Declaration Ackerberg takes advantage of additional cost data produced by defendants and adds to his model (a) product-category cost indices (similar to Cox), (b) company-specific cost indices for Ottogi products, Nongshim products manufactured in Korea, and Nongshim products manufactured in the U.S (like Cox, using Ottogi's internal transfer prices for pre-2006 Ottogi sales data), and for added confirmation, (c) his original cost index. Ackerberg Reb. Decl. at 25-26. Use of this additional data addresses many of defendants' main attacks, and Ackerberg's model continues to show significant injury to class members except for the first conspiracy period, where impact existed but was much lower. *Id*. at 26. In the end, what the but-for price should have been (based in large part on what costs were) will be debated on summary judgment and trial. But Ackerberg's showing at this juncture is based on reasonable (if debatable) cost measures that show classwide impact.

Pass-Through: Defendants criticize Ackerberg's use of a 100% pass-through rate, which Ackerberg arrived at after reviewing deposition testimony from IPPs as well as data from two retailers and two end purchasers which shows pass-through rates from 93% to 138%. Defendants fault Ackerberg for not reviewing additional pass-through data to come up with a more robust estimate of pass through rates, especially in light of their argument that the channels of distribution in the ramen market are many and diverse (and changed overtime with the formation of Ottogi America). Defendants rely on *In re Graphics Processing Units*, 253 F.R.D. 478, 505 (N.D. Cal 2008), where the court noted – in absence of any econometric modeling – that "[c]lass certification is problematic where a plaintiff's method of proving pass-through requires a reseller-

[37] I note, again, that defendants do not identify any individual DPPs who were allegedly uninjured throughout the collusion periods because they negotiated significant discounts on every purchase from defendants. They apparently are unable to do so if using Mangum's or Ackerberg's models with the revised price data, and likely can only do so when relying on Cox's model with its much lower but-for price.

by-reseller analysis." However, the market in the GPU case was markedly more complex than here. Not only were there a "variety" of resellers and distinct channels through which graphics chips flowed, the chips were sold "to some indirect purchasers on a stand-alone basis but to others bundled in a computer" creating an especially "intricate" distribution chain. *Id*. at 499. Here, the distinctions between wholesalers and different types and sizes of retailers selling packaged noodles do not present those sorts of intricacies. Ackerberg based his analysis on an admittedly small sampling of resellers, but defendants do not show how that small sample size creates actual problems with his conclusions. Finally, Ackerberg's use of a conservative pass-through estimate of 100% further supports the reasonableness of his approach at this juncture.[38]

Wrong Model/Wrong Variables: As with Mangum, this argument criticizes Ackerberg's use of the hedonic/dummy variable approach, instead of Cox's forecasting model, and asserts without support that Ackerberg's model suffers from a "severe" multicollinearity problem. As noted above, disputes about the appropriate degree of collinearity cannot defeat class certification. *See, e.g.*, *In re High-Tech Employee Antitrust Litig*., No. 11-CV-02509-LHK, 2014 WL 1351040,

[38] Defendants also rely on *In re Graphics Processing Units Antitrust Litig*, No. C 06-4333 PJH, 2008 WL 4155665 (N.D. Cal. Sept. 5, 2008), where the Court rejected plaintiffs' expert's pass-through estimate because it failed to adequately address significant differences in pass-through rates. *Id* *8. However, the DRAM market also presented "unique" complexities (the product came in different densities, speeds, and frequencies was sold in three forms-as free-standing memory chips, as a component in DRAM 'modules,' or as a component in other electronic products, such as computers, printers and networking equipment) and included government purchasing classes which varied dramatically in size, purchasing power, and rebates secured. *Id*. at *8. The ramen market does not present the same sort of complexities. Defendants also cite *In re Processed Egg Prod. Antitrust Litig*., 312 F.R.D. 124 (E.D. Pa. 2015), which dealt with another complex market. In that case, the experts' pass-on analysis was rejected because it did not account for the evidence showing the use of cost-plus contracts, pricing eggs as loss-leaders, and the practice of smaller retailers matching pricing of bigger box stores. *Id*. at 158. In addition, the expert there performed an analysis of only one retailer (as opposed to the two retailers and two distributors here), and the defense expert presented contradictory evidence having "analyzed the store-level data and concluded that significant variation exists between different retailers and even for different types, sizes, and colors of eggs." *Id*. at 159. That sort of contradictory evidentiary showing has not been made here. Finally, in *In re Florida Cement & Concrete Antitrust Litig*., 278 F.R.D. 674 (S.D. Fla. 2012), the court rejected the expert's assumption that 100% pass through would occur based on contract terms that contemplated pass-through, in light of significant evidence that DPPs did not consistently pass through and instead absorbed the impact from higher concrete prices given the "poor" state of the construction industry. Similar contradictory evidence or expert testimony regarding Ackerberg's evidence-based estimate of pass through have not been presented here.

at *21 (N.D. Cal. Apr. 4, 2014).

2. Damages

Defendants argue that the flaws in Ackerberg's analysis – his failure to address differences in the manufacture, procurement, and sale of ramen and use of cost averages – render his aggregate damages (based on the regression model's output) inherently unreliable. This, compounded with an alleged failure to adequately account for differing pass through rates, means that Ackerberg's model is insufficient under *Comcast Corp. v. Behrend*, 133 S. Ct. 1426 (2013) and that his opinions excludable under *Daubert*, according to defendants. These attacks are similar in scope and effect to the ones made against Mangum that I have rejected.[39] As with injury, defendants challenge Ackerberg's failure to take into account more actual data to support his 100% pass-through estimate and argue that his aggregate damages estimate is inherently unreliable as a result. However, defendants do not identify *any evidence* to support their argument (*e.g.*, there is no evidence that given the actual market dynamics for Korean Noodles, DPPs were unable to pass through the alleged overcharge). As defendants fail to show that Ackerberg's 100% pass-through estimate is significantly flawed, that evidence-based estimate is sufficient at this juncture.

B. Typicality

Defendants focus on the differences between the IPPs – individuals from six states who purchased ramen through different channels (Korean grocery stores, Hispanic markets, or warehouse stores) – to argue that the named IPPs are differently situated from and not typical of absent IPPs who reside in other states and who purchased through different channels. While defendants identify many individual types of consumers and show that the IPPs purchased Korean Noodles from different channels, defendants fail to show how those differences separate them from each other with respect to the overcharge claim at issue. *See, e.g., Ellis v. Costco Wholesale*

[39] For example, defendants challenge Ackerberg's initial estimate of a 31% average overcharge as "untenable" as Mangum's 41% estimate. Defendants likewise challenge Ackerberg's omission of discounts/incentives and actual cost data, as well as his use of averaged-cost indices. For the reasons discussed above, these challenges do not show that Ackerberg's model is inherently unreliable or unable to show classwide injury.

Corp., 657 F.3d 970, 984 (9th Cir. 2011) ("The test of typicality 'is whether other members have the same or similar injury, whether the action is based on conduct which is not unique to the named plaintiffs, and whether other class members have been injured by the same course of conduct.'" (quoting *Hanlon v. Chrysler Corp*., 150 F.3d 1011, 1020 (9th Cir.1998)).

Simply because the consumers are different does not make them atypical with respect to the factual or legal issues in this case. Defendants only real stab at differentiating the IPPs is to argue that Ackerberg's model fails to prove that each IPP suffered damage from the overcharge. However, if a putative IPP was not damaged by any overcharge during the class period, then that person is not within the class. If a putative IPP was damaged even once, then they are in the class and not differently situated from the other IPPs, even though they may have purchased less ramen or purchased it through different channels.[40]

C. Ascertainability

Because absent class members can only be identified by uncorroborated self-identification, defendants argue the class is not ascertainable. However, as the Ninth Circuit recently reaffirmed, concerns about illegitimate claims and manageability – such as those expressed by defendants here – are accounted for by other provisions of Rule 23; that consumers do not generally save "grocery receipts and are unlikely to remember details about individual purchases of a low-cost product" like ramen, does not mean a class of consumers cannot be certified. *See Briseno v. ConAgra Foods, Inc*., No. 15-55727, 2017 WL 24618, at *3, 10 (9th Cir. Jan. 3, 2017). Neither the fact that class members have to "self-identify" nor that they might not have readily available proof of purchase, means that they are not ascertainable sufficient for class certification. *See, e.g., Kumar v. Salov N. Am. Corp*., No. 14-CV-2411-YGR, 2016 WL 3844334, at *6 (N.D. Cal. July 15, 2016) (finding class members ascertainable despite defendant's arguments that class members would have to self-identify and show "what they paid, where they purchased it, and how many times,

[40] This is not a situation like *In re Graphics Processing Units Antitrust Litig*., 253 F.R.D. 478, 489–90 (N.D. Cal. 2008) where the "overwhelming disparities" between the IPPs – the *average* wholesaler purchased $19.2 million in products but the *aggregate* of hundreds of thousands of individual consumer transactions only came to $7.83 million – created significant typicality hurdles.

plus whether they saw and were deceived" by a product's label). Post-judgment claims forms and other tools can be used to allow defendants to test an absent class member's purported entitlement to damages and to appropriately apportion damages between class members. *Id*. at *7; *see also Briseno*, 2017 WL 24618 at *9 (at "the claims administration stage, parties have long relied on 'claim administrators, various auditing processes, sampling for fraud detection, follow-up notices to explain the claims process, and other techniques tailored by the parties and the court' to validate claims.").

D. State Law Claims

Generally, due process requires a showing of either sufficient contacts or absence of conflict between laws before one state's laws can be exported and apply to the claims of class members in other states. *See, e.g., Phillips Petroleum Co. v. Shutts*, 472 U.S. 797, 808, 819-820 (1985); *AT & T Mobility LLC v. AU Optronics Corp*., 707 F.3d 1106, 1113 (9th Cir. 2013). Even if constitutional concerns are satisfied, however, choice of law rules should be considered to weigh the different interest of the different state laws at issue. *AU Optronics Corp*., 707 F.3d at 1113 ("Objections based on the interests of other states are more properly raised under a choice of law analysis."). Defendants argue that a nationwide class is inappropriate under the Cartwright Act and that variations in the state laws of the states where the named IPPs live preclude certification.

As to due process, plaintiffs rely heavily on *AT & T Mobility LLC v. AU Optronics Corp*., 707 F.3d 1106 (9th Cir. 2013). There, in a price-fixing case with similar aspects to this one (a foreign conspiracy with alleged collusive behavior in California impacting the United States market), the Ninth Circuit held that where "the underlying conduct in this case involves not just the indirect purchase of price-fixed goods, but also the conspiratorial conduct that led to the sale of those goods," California's Cartwright Act could be applied to a class without impinging on defendants' due process rights.[41] The court held "that the Cartwright Act can be lawfully applied

[41] The California-based conspiratorial conduct alleged in *AU Optronics* there was extensive, namely that defendants: (i) engaged in and implemented their conspiracy in the U.S. through the offices they maintained in California; (ii) that Defendants entered into agreements to fix the prices of LCD panels in California; (iii) that significant conspiratorial conduct took place in California, including that "specific employees of particular Defendants, operating from offices in California, participated in illegally obtaining and sharing their co-conspirators' pricing information." *Id*. at

without violating a defendant's due process rights when more than a *de minimis* amount of that defendant's alleged conspiratorial activity leading to the sale of price-fixed goods to plaintiffs took place in California. Such a defendant cannot reasonably complain that the application of California law is arbitrary or unfair when its alleged conspiracy took place, at least in part, in California." *Id*. at 1113.

The court rejected a focus on place-of-purchase to define the "relevant transaction or occurrence" because that "too-narrow focus" "severely truncates the scope of anticompetitive conduct that the Act proscribes." *Id*. at 1110.[42] Therefore, the district court must consider "all of the Defendants' conduct within California leading to the sale of price-fixed goods outside the state when determining whether California law could be applied without offending Defendants' due process rights." *Id*. at 1112. Here, there are more than *de minimis* allegations of conspiratorial conduct and impact occurring in California.

As to the choice of laws analysis, before California law can be used on a classwide basis, plaintiffs must show that "California has 'significant contact or significant aggregation of contacts' to the claims of each class member;" if that is shown, defendants must demonstrate that the foreign law, rather than California law, should apply to the claims because the interests of those states outweigh the interests of California. *Mazza v. Am. Honda Motor Co*., 666 F.3d 581, 590 (9th Cir. 2012). Under that second prong, the court applies California's three-part choice of law analysis: (i) whether the relevant law of each of the potentially affected jurisdictions with regard to the particular issue in question is the same or different; (ii) if there is a difference,

---

1109.

[42] This clear admonition makes the two primary cases defendants rely on to oppose application of the Cartwright Act outside of California unpersuasive. *See In re Relafen Antitrust Litig*., 221 F.R.D. 260, 277 (D. Mass. 2004) (concluding the "most significant contact in this context to be the location of the injury—that is, the location of the sales to the end payor plaintiffs" and declining to certify a nationwide antitrust class under Pennsylvania law); *In re Graphics Processing Units Antitrust Litig.*, 527 F. Supp. 2d 1011, 1028 (N.D. Cal. 2007) (following *Relafen*). The Ninth Circuit in *AU Optronics* undercut the *Relafen* decision in another significant way by explaining that the purpose of the Cartwright Act as confirmed by the California Supreme Court is not only to compensate injured consumers but to also deter defendants and disgorge ill-gotten profits. 707 F.3d at 1113-1114.

examine whether each jurisdiction's interest in the application of its own law under the circumstances of the particular case to determine whether a true conflict exists; and (iii) if there is a true conflict, evaluate and compare the nature and strength of the interest of each jurisdiction in the application of its own law to determine which state's interest would be more impaired if its policy were not applied, and then apply the law of the state whose interest would be more impaired. *Id.*

The only potential conflict between state laws identified by defendants – and it is *their burden* to identify conflicts – is the distinction between states who have repealed *Illinois Brick* and allow indirect purchaser plaintiffs to pursue price-fixing claims and those that have not. Oppo. to IPP at 24-25.[43] Defendants have not identified any conflicts to applying the Cartwright Act to the 24 *Illinois Brick* repealer jurisdictions, and therefore class certification for those jurisdictions is appropriate.[44] *See, e.g., In re Optical Disk Drive Antitrust Litig.*, No. 3:10-MD-2143 RS, 2016 WL 467444, at *14 (N.D. Cal. Feb. 8, 2016) (certifying a class under the Cartwright Act for IPPs in *Illinois Brick* repealer states).

The next question is whether application of the Cartwright Act to the non-repealer states would undermine the interests of those states and impair those interests more than California's interests in punishing price-fixing behavior that emanates from its borders. Plaintiffs argue that despite failing to repeal *Illinois Brick,* those states have no compelling interest in denying their

[43] Instead of identifying conflicts between other states' laws and the Cartwright Act, defendants rely on false advertising and unfair competition cases, mostly from the food and product mis-labelling contexts, which generally follow's *Mazza's* recognition that there are material differences in each state's consumer protection statutes and that states have conflicting interests "insofar as consumer protection laws affect a states' ability to attract industry." *Astiana v. Kashi Co.*, 291 F.R.D. 493, 510 (S.D. Cal. 2013) (quoting *Mazza*); Oppo. to IPP. at 25. Those cases are not persuasive on the question of whether the Cartwright Act should be applied to a class broader than California residents. *See also In re Yahoo Mail Litig.*, 308 F.R.D. 577, 602 (N.D. Cal. 2015 (declining to certify a nationwide class because of material differences between California's Invasion of Privacy Act [CIPA] and the wiretapping statutes of the other states, especially in light of the different standards of liability under the statutes and the California legislature's express statement that CIPA was intended to protect residents of California).

[44] Those jurisdictions are Arizona, California, Florida, Hawaii, Kansas, Maine, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Mexico, New York, North Carolina, Oregon, Tennessee, Utah, Vermont, West Virginia, and Wisconsin, and the District of Columbia.

citizens the ability to recover for antitrust violations committed by out-of-state or foreign companies. However, as recently recognized in this District, "[g]iven that the action simply could not go forward in non-repealer states, however, it is too much of a stretch to employ California law as an end run around the limitations those states have elected to impose on standing." *In re Optical Disk Drive Antitrust Litig.*, No. 3:10-MD-2143 RS, 2016 WL 467444, at *12 (N.D. Cal. Feb. 8, 2016).

Therefore, IPP's claims only under the 24 repealer jurisdictions are certified for purposes of Rule 23(b)(3) under the Cartwright Act.

E. Nationwide Injunctive Relief Class under Rule 23(b)(2)

The IPPs argue that a nationwide injunction class should be certified under Rule 23(b)(2) and the Sherman Act, given the highly concentrated nature of the industry and defendants' alleged ability to resume their price-fixing plan at will.[45] As with the DPPs' motion, defendants do not address this issue or attempt to show why certification of an injunctive relief class is inappropriate.

As noted above, plaintiffs have put forth evidence of market power by defendants, as well as evidence of a conspiracy to engage in antitrust conduct that impacted the United States. That evidence provides a sufficient basis for certifying an injunctive relief class at this juncture.

III. EVIDENTIARY OBJECTIONS

Defendants also assert a number of objections to the evidence plaintiffs rely on, and do so in an exceptionally cursory manner. *See* Dkt. No. 403-2 at 25; Dkt. No. 403-4 at 25.[46] Plaintiffs

[45] A class may be certified under Rule 23(b)(2) where "the party opposing the class has acted or refused to act on grounds that apply generally to the class, so that final injunctive relief or corresponding declaratory relief is appropriate respecting the class as a whole." Fed. R. Civ. Proc. 23(b)(2).

[46] Defendants object to and move to strike the DPPs responses to these evidentiary objections because the responses for the initial objections should have been included in the DPP Reply, and instead DPPs filed a 9 page brief and 57 page chart responding in detail to the objections a month after their reply brief was filed. Dkt. No. 492; *see also* Dkt. No. 486-4. DPPs have filed an administrative motion seeking to have those errors forgiven and ask the Court to consider the objections in Dkt. No. 486-4. Defendants move to strike the administrative motion and/or to be given the opportunity to file their own chart in similar length to substantiate their original objections. Dkt. No. 492. While plaintiffs erred in not responding to defendants' initial set of objections in their reply, defendants' presentation of their objections was not in full compliance either (*i.e.*, submitting a cursory chart of numerous objections with citations to "supporting" evidence contained in declarations). However, I have adequate information to be able to resolve

object that evidentiary objections are not appropriately considered at the class certification stage. *See, e.g.*, *Keilholtz v. Lennox Hearth Prod. Inc.*, 268 F.R.D. 330, 337 (N.D. Cal. 2010) ("On a motion for class certification, the Court may consider evidence that may not be admissible at trial."). Nonetheless, I will address the objections briefly.

Hearsay Objections: Defendants object to portions of Exhibits to the Cho Declaration, the Birkhaeuser Declaration, and the Cho Supplemental Declaration on the ground of hearsay.[47] Most of the objections are directed to statements (from deposition transcripts or documents from the Samyang Hard Drive) from alleged coconspirator Samyang regarding the alleged conspiracy. Some of the other objections are to documents produced by Nongshim, received from the alleged conspirators. These statements and documents arguably fall within the hearsay exception for coconspirator statements (Fed. R. Evid. 801(d)(2)(E)) and the objections are OVERRULED for purposes of the class certification motions. Objections are also made to documents produced by Nongshim and/or Ottogi from their own employees. Objections to these documents are OVERRULED for purposes of the class certification motion as party admissions. Fed. R. Evid. 801(d)(2). Some of the other hearsay objections are directed to newspaper articles about the Korean Ramen Noodle industry. I have not relied on those newspaper articles, therefore, the objections are OVERRULED as moot for purposes of the class certification motions.

Authentication Objections: Defendants object to portions of Exhibits to the Cho Declaration on the ground of lack of lack of authentication.[48] These are mostly Nongshim or Ottogi business records, documents attached to or otherwise part of the KFTC and Korean Supreme Court proceedings, documents from the Samyang Hard Drive, or deposition excerpts. For purposes of the motions for class certification, the authentication objections are OVERRULED.

---

the objections as necessary. Plaintiffs' administrative motion (Dkt. No. 490) is GRANTED. Defendants' motion to strike (Dkt. No. 492) is DENIED.

[47] Cho Decl.: Exs. 2, 14, 16, 17, 18, 22, 23, 24, 25, 26, 27, 28, 29, 30, 31, 40, 43, 48, 49, 52, 54; Birkhaeuser Decl.: Exs. O, Z; Cho Supp. Decl.: Ex. 14.

[48] Cho Decl.: Ex. 4, 7, 8, 15, 17, 22, 23, 24, 25, 26, 27, 28, 29, 31, 37, 40, 43, 50, 54.

Lacks Completeness: Defendants object to portions of the Exhibits to the Cho Declaration and the Birkhaeuser Declaration on the ground that the deposition excerpts "lack completeness."[49] Any lack of completeness could have been cured by defendants' exhibits. The objections are OVERRULED for purposes of the class certification motions.

Lack of Personal Knowledge/Speculative: Defendants object to portions of the Exhibits to the Cho Declaration and the Birkhaeuser Declaration on the ground that the deponent lacks personal knowledge and/or is being speculative.[50] The objected to exhibits contain deposition excerpts from current or former employees of the alleged conspirators and named plaintiffs. Those objections are OVERRULED for purposes of the class certification motions.

Relevance: Defendants object to exhibits attached to the Cho Supplemental Declaration on the grounds of relevance, as those exhibits were not actually cited in the DPPs reply.[51] Those objections are OVERRULED for purpose of the class certification motions.

IV. MOTIONS TO SEAL

The parties have filed a number of motions to seal in conjunction with their filings in support of or in opposition to the class certification motions. These sealing motions will be addressed in a separate order.

CONCLUSION

For the foregoing reasons, the DPP and the IPP motions for class certification are GRANTED and defendants' *Daubert* motions are DENIED. The following classes are certified under Rule23(b)(2) and (b)(3):

DPP Class:

> All persons and entities in the United States and its territories who purchased Korean Noodles directly from Defendants Nong Shim Co., Ltd., Nongshim America, Inc., Ottogi Co., Ltd., or Ottogi America, Inc. at any time from April 1, 2003 through January 31, 2010. The Class excludes the Defendants Samyang Foods Co., Ltd., Samyang (USA), Inc., Korea Yakult, Co., Ltd., Paldo Co., Ltd. and any of their current or former parents, subsidiaries or affiliates. The Class also excludes all judicial officers presiding over this action

[49] Cho Decl.: Exs. 19, 20; Birkhaeuser Decl.: Ex. M.

[50] Cho Decl. Exs. 2, 3, 13, 14, 16, 18, 20, 30, 47, 49, 50, 54; Birkhaeuser Decl. Exs. O & Z.
[51] Cho Supp. Decl. Exs. 4, 6, 7, 8, 15, 16, 18.

and their immediate family members and staff, and any juror assigned to this action.

IPP Class:

All persons and entities that purchased "Korean Ramen Noodles" in Arizona, California, Florida, Hawaii, Kansas, Maine, Massachusetts, Michigan, Minnesota, Missouri, Montana, Nebraska, Nevada, New Hampshire, New Mexico, New York, North Carolina, Oregon, Tennessee, Utah, Vermont, West Virginia, and Wisconsin, and the District of Columbia for their own use and not for resale, from March 1, 2003 through January 31, 2010. For purposes of this definition, "Korean Ramen Noodles" means Nongshim, Ottogi and Samyang branded bag, cup or bowl ramen, including fried, dried, fresh and frozen noodle products. Specifically excluded from this class are any Defendant; the officers, directors, or employees of any Defendant; any entity in which any Defendant has a controlling interest; and any affiliate, legal representative, heir, or assign of any Defendant. Also excluded are the judicial officers to whom this case is assigned and any member of such judicial officers' immediate family.

A Case Management Conference is set for **February 14, 2017, at 2:00 p.m.** to set a trial date and pre-trial calendar. The parties shall meet and confer and file a Joint Statement on or before February 8, 2017 proposing dates and identifying any other issues they wish me to consider at the CMC.

IT IS SO ORDERED.

Dated: January 19, 2017

WILLIAM H. ORRICK
United States District Judge

United States District Court
Northern District of California